MADERA COUNTY

ASSOCIATE CIVIL ENGINEER

DEFINITION

Under direction, to perform a variety of difficult professional engineering work; and to do related work as required.

SUPERVISION EXERCISED

Exercises direct supervision over professional and technical staff.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES

Plans, assigns, and directs the work of staff involved in the design, construction, and inspection of private roads, bridges, drainage, and water and sewer systems; prepares, checks, reviews, and evaluates structural computations, seismic analyses, plans, and specifications for County engineering programs; ensures plans and specifications are in compliance with requisite laws and regulations; reviews and checks plans submitted by engineering consultants for compliance with applicable engineering standards, laws, and codes; checks and reviews subdivision maps, parcel maps, and survey records; supervises and performs land and construction surveys as delegated; inspects and investigations drainage and flooding problems; may represent the Department at Planning Commission and other public meetings; reviews conditions of approval placed on parcel maps, lot line adjustments, site plans, and use permits from an engineering prospective; prepares complex engineering reports; performs structural plan checks for building permits; may prepare plans, designs, and specifications for County road and bridge construction work; may perform a variety of professional engineering work related to County bridge and road construction; provides training and guidance for engineering support staff.

OTHER JOB RELATED DUTIES

Performs related duties and responsibilities as assigned.

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Knowledge of:

Principles, practices, and methods of civil engineering as applied to County public works projects, service areas, and special districts.
Mapping methods.
Engineering principles and practices as applied to the design, construction, and development of County facilities.

Knowledge of:

Pertinent Federal, State, and local laws, codes, and regulations related to drainage, water quality, water and sewer treatment, land surveying, and subdividing.
Principles and practices of land use planning and applicable codes.
Principles, practices and methods of civil engineering as applied to the planning, designing and construction of complex roads, bridges, drainage and other structures.
Modern standards of alignment and grade of roads.
Design principles, the strength of materials and the stress analysis required in planning roads and bridges.
Hydraulics and structural design of roads, bridges, drainage or other projects.
Documents necessary for legal property descriptions and right of way acquisition and abandonments.
Federal, State and local regulations involving project approval for Federal and State funds including but not limited to environmental, design and construction.

Skill to:

Operate modern office equipment including computer equipment.
Operate a motor vehicle safely.

Ability to:

Design engineering plans and prepare specifications for flood control, drainage structures, roads, bridges, and other County facilities.
Perform technical engineering research work.
Provide guidance and training for engineering support staff.
Perform detailed and exacting professional engineering work.
Prepare cost estimates for engineering projects.
Review engineering plans and specifications for flood control, drainage structures, roads, and bridges prepared by others.
Conduct technical engineering project planning work, make detailed analysis and prepare reports.
Inspect construction projects for adherence to contracts and specifications.
Prepare clear, concise technical engineering reports.
Effectively represent the County to the public, community organizations, and other government agencies.
Communicate clearly and concisely, both orally and in writing.
Establish, maintain, and foster positive and harmonious working relationships with those contacted in the course of work.

Experience and Training Guidelines:
Any combination equivalent to experience and training that would provide the required knowledge, skills, and abilities would be qualifying. A typical way to obtain the knowledge, skills, and abilities would be:

Experience:

Two years of increasingly responsible experience in professional engineering work.

Training:

Equivalent to a Bachelor's degree from an accredited college or university with major course work in civil engineering.

License or Certificate:

Possession of valid registration as a Civil Engineer issued by the State Board of Registration for Professional Engineers.
Possession of, or ability to obtain, an appropriate, valid driver's license.

Special Requirements:
Essential duties require the following physical skills and work environment:

Ability to work in a standard office environment including the ability to work outdoors and travel to different sites and locations.

Effective Date: April, 2000